

Work Sheet For Tree Ring Analysis

1. Carefully examine the rings of the cross section of the tree sample provided to you. You may need to use a magnifying glass especially with rings near the bark and pith areas of the sample. Select three rings that seem to reflect above average precipitation for the growing season of your tree sample based on the nominal size of all the rings on your cross section. Determine the years that the above precipitation fell by counting the rings starting with the ring closest to the bark. List the years you have selected below. (The precipitation data available at the MY NASA DATA website starts with the year 1979.)

a. Year _____ b. Year _____ c. Year _____

2. Follow the procedures listed in the Tree Ring Analysis Lesson Plan (http://mynasadata.larc.nasa.gov/preview_lesson.php?&passid=95) to access the precipitation data for the years you have selected and record the data below.

a. Year _____ b. _____ c. _____

3. Indicate below, if the data from the MY NASA DATA website verify that the years you selected were in fact wetter than normal for your sample, at least during the growing season. If your answer is *NO*, provide some reasons that might explain the differences.

Yes _____ No _____

Your ring count was off due to a false ring at the cambium layer or perhaps the year was wetter, overall, but not during the summer when tree rings are normally smaller. Other environmental factors may have affected tree growth such as a change in the competition from other trees or runoff from fertilized fields.

4. Respond below to the following questions: If your answer to the above was *Yes* does that mean that the extra precipitation is the only explanation for the increase in the size of the growth rings? Is there another source of data that you might check to verify the data that you have collected so far?

No, other environmental factors such as those mentioned above may have played a roll in the increase in the ring size. Weather data from NOAA, the National and local weather bureaus could also provide data to verify your results. A further check to determine if the increased precipitation is the primary cause for the increase in size would be tree analysis results from state and national forestry organizations and/or state universities.